

be obliged to extend the present review, already too long, beyond all reasonable limits.

The essay will be found a very valuable contribution towards the elucidation of the physiology of cell-formation and its relation to organization, mainly deduced from original investigations.

As an original production, its value will depend mainly upon the accuracy of the observations instituted by its author. On this, we are not prepared to offer any opinion. No one is competent to decide upon the fidelity with which Dr. Burnett has delineated the several forms and mutations of organic cells, who has not, with microscope in hand, carefully studied the subject for himself, or who has not, at least, repeated the same series of observations as those from which the deductions of that gentleman are derived.

As a monograph on the general subject of cell development and function, the essay is, to a certain extent, instructive. Deficient, it is true, in regard to some of the more recent facts and doctrines, but, upon the whole, ably and faithfully drawn up. Written, as the author admits, in a prefatory note, during the year 1851, "the many advances the science of structure has since made, has thrown so much light on some obscure points, that the parts relating to them ought almost to be now rewritten, to be up with the times." This deficiency he has, however, sought, at least in part, to make good, by inserting as much new matter as well could be, while the sheets were passing through the press.

We have many reasons to regret that the author was under the necessity of making the statement just alluded to, candid and honourable as it is on his part.

It will deter many, we fear, from the attentive study of the essay, under the impression that they will not derive from it complete information in relation to the subject of which it treats; while it may, perhaps, lead to the supposition that the Association has been misled in conferring one of its annual prizes on a dissertation which is behind the knowledge of the day.

D. F. C.

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ART. IX.—*Practical Observations on Aural Surgery, and the Nature and Treatment of Diseases of the Ear.* With Illustrations. By WILLIAM R. WILDE, Surgeon to St. Mark's Ophthalmic Hospital, Dublin, &c. &c. Philadelphia: Blanchard & Lea, 1853. Svo. pp. 475.

WE have rarely had the pleasure of inviting the attention of our readers to a publication which will be more welcome to the profession than this. It treats of a subject extremely little known to the mass of practitioners, and which has been tacitly relinquished by them to quackery and ignorance as a choice preserve in which these may hunt their game. The reason of this is doubtless to be found in the complex anatomical structure of the ear, and the concealed situation of its most important parts; whereby a thorough physical examination of the organ during life, and a satisfactory *post-mortem* investigation are rendered extremely difficult to all, saving to the few whose nice observation and patient and laborious research are neither to be baffled by obscurities nor wearied by obstacles.

Mr. Wilde possesses in an eminent degree the qualities necessary to the

successful prosecution of aural surgery. We read in a recent number of an able contemporary, the *London Medical Times and Gazette*, that he "was the pupil of the late celebrated Abraham Colles, Professor of Surgery in the College of Surgeons in Ireland, who made use of him to carry out numerous pathological investigations in which that great man was constantly engaged. He was then known no less for the patient industry and success with which he conducted researches generally dry and uninteresting to young minds, than for the extraordinary energy and activity which he brought to bear upon every topic connected with the advancement of his studies, or with those branches of the science of medicine which fell in his way." Thus prepared by previous training, he devoted himself from a very early period of his professional life to the study of diseases of the Eye and Ear. He instituted St. Mark's Hospital, in Dublin, for the treatment of these affections, and now, about ten years since its commencement, this establishment is, we are told by Dr. Hewson, one of his pupils, and the American editor of his book, "one of the largest and best conducted of the kind in Great Britain."

Mr. Wilde prefaces the special consideration of Aural diseases with a chapter on the history of these affections, in which the chief writings and recommendations upon the subject are enumerated according to their dates, and briefly criticized. This portion of the volume is interesting and instructive on many accounts; but we will not dwell upon it, trusting that our readers will possess themselves of the book and examine this chapter personally. The first special treatise on Aural affections which Mr. Wilde has been able to discover is that of Heurnius Mercurialis, *De Oculorum et Aurium Affectibus Prælectiones*, published at Frankfort, in 1584. And the most notable contributors to this branch of pathology since that date are, we gather, Du Verney, in 1683; M. Guyot, a postmaster of Versailles, who, in 1724, proposed to the French Academy to inject the Eustachian tube by means of a catheter introduced through the mouth; Archibald Cleland, an English army surgeon, who, in 1741, proposed a speculum for examining the ear, to which Mr. Wilde thinks may be traced the subsequent *inspector auris* of Delau, Itard, Buchanan, and Kramer, and to whom is due the merit of suggesting that the Eustachian catheter should be introduced through the nostril; Mr. Watham, who, in 1755, published an essay in the *Philosophical Transactions*, proving that the Eustachian tube and the middle ear can be entered and washed out by means of a catheter introduced by the nose into the tube; Degrauers and Cooper, to whom we are indebted for the operation for perforating the membrana tympani; Saunders, the founder of the London Infirmary for Diseases of the Eye, whose work on the Anatomy of the Human Ear, illustrated by a series of engravings of the natural size, with a treatise on the Diseases of that Organ, the Causes of Deafness, and their proper treatment, published in 1806, Mr. Wilde regards as the first English production, on this specialty, possessing any merit; Delau, Itard, Valleroux, in France; Kramer, Lincke, Schmalz, and Frank in Germany; and latterly, in England, Pilcher, Dr. J. Williams, Wharton Jones, Yearsley, Harvey, and Toynbee, to the last of whom we are particularly indebted for the greatest number of *post-mortem* examinations of the ear.

The three great epochs in the history of Aural surgery, are marked by the introduction of the *speculum auris* by Fabricius Von Hilden, about the middle of the seventeenth century; the suggestion and employment of the Eustachian catheter, by Guyot, Cleland, and Watham, within the succeeding hundred years; and finally, the perforation of the membrana tympani by

Degravers and Sir Astley Cooper in the last quarter of the eighteenth, and in the commencement of the present century.

As to the plan and scope of the present work, Mr. Wilde says:—

“At the commencement of each chapter I have given a brief anatomical description of the parts concerned in the affections under consideration, and a concise account of their most remarkable malformations and congenital diseases; afterwards, the etiology and treatment of those diseases with which I am myself most familiar are described. I have followed that division into the diseases of the external, middle, and internal ear, because it seems to facilitate description, as well as to make the most lasting impression on the mind of the student. The work concludes with a section on deaf-dumbness, which contains the result of the inquiry set on foot under the Irish Census-commission for 1851, and which I have compressed from the official report upon that subject.”

*The means of diagnosis, and the application of remedies* are the subjects of the second chapter. In it we find a more complete and detailed account of the plan to be pursued in examining patients labouring under Aural affections than we have seen in any other publication. The importance of such instruction cannot be overestimated, as it lays at the foundation of, and should determine, all subsequent proceedings. We propose, therefore, to give, as concisely as possible, the course which Mr. Wilde recommends.

The physical examination should be prefaced by so placing the patient that a strong, direct sunlight, if possible, should fall upon the ear. The colour, feel, temperature, thickness, &c. of the auricle should be ascertained; the concha should be particularly scrutinized with reference to these points. Then, the upper rim of the helix should be lifted upwards, backwards, and outwards by the thumb and finger of one hand, and the tragus should be drawn forwards upon the zygoma, so as to expose to view the outer portion of the auditory canal. To facilitate the exposition of the external aperture, a little instrument, resembling in shape the ordinary univalve speculum recti, but more delicate, of course, may be employed. The amount of tenderness of the parts should be investigated, both by simple pressure and by compression made with the finger while the lower jaw is moved as in ordinary mastication.

“Where we have reason to believe,” says Mr. Wilde, “that inflammatory action exists, the *mastoid process*, in an especial manner, claims our attention. Its colour, size, shape, and temperature, may be learned by even a cursory examination; but besides this, it should be most carefully pressed upon with a couple of fingers, with a much greater degree of firmness than is usual in making examinations of the like nature elsewhere; and this examination should not only be applied to the mastoid region, but to the whole posterior and lateral portion of the head, if we have reason to suspect any inflammation, or its effects. The insertion of the sterno-mastoid, as well as the upper third of that muscle, should also be carefully examined in the same way, as there is a small gland, in shape and size like a horsebean, situated immediately behind the auricle, over the middle of the mastoid process, which frequently becomes enlarged during the progress of aural inflammations, and is also the seat of violent neuralgic pain in some instances. If the integuments and soft parts are swollen or oedematous, as is frequently the case in certain inflammatory affections of the ear, as also where they have become thickened from long-continued disease, it will require a considerable degree of force to make a perfectly satisfactory examination. The amount of pitting made by the finger during this examination, and its degree of permanency, are also circumstances of value in the formation of a diagnosis. Percussion of the mastoid process, immediately behind the attachment of the auricle, occasionally affords some information, as will be shown in some of the cases hereafter detailed.”

In order to ascertain the condition of the auditory canal and the external face of the membrana tympani, it is necessary to employ some kind of *speculum* through which a stream of light, either that of the sun or of a flame, shall be conveyed directly down upon the surface to be examined. Mr. Wilde discusses the merits and defects of the various instruments devised and used for this purpose, and which we need not enumerate, and expresses his conviction of the superiority of the one which he himself introduced in 1844—a modification of that invented by Dr. Newburg, in 1827. This speculum is a conical silver tube, both surfaces of which are highly polished; it is an inch and a half long, five-eighths of an inch wide at the greater aperture, which is surrounded by a stout ring or burr, and varying from two to four lines in the clear at the smaller extremity, of which the outer surface should be perfectly smooth and rounded, so as not to lacerate or scrape the lining membrane of the meatus. He advises that three of these little instruments of different sizes should be procured and carried in a small case, one fitting into another. We may remark that drawings of this speculum, as well as of all the other instruments invented by Mr. Wilde, are introduced into this book. The patient being seated opposite a strong sunlight, the tube is inserted gently into the meatus, and the head is so inclined that the light shall strike successively upon every part of the surfaces to be examined, so that the surgeon's eye may carefully scrutinize the whole. "By this means, every part of the external auditory tube, and the membrana tympani, and even the position of the malleus within it, may be as distinctly seen and as carefully examined as any portion of the external surface of the eye." "Another great advantage which this funnel-like speculum possesses over all others is, that it remains fixed in the ear, causing scarcely any inconvenience, and leaving one or both hands free for the application of instruments if necessary. It is also much more easily used with young children than any other." Of course it is not possible to *dilate* the auditory canal by a hinge-jointed or any other speculum; the most that can be accomplished is to straighten the external cartilaginous portion of the tube, and thus permit the light to penetrate to its bottom and sides. It is hardly requisite to state that if the canal be plugged up with hardened cerumen, this must be removed, and the lining membrane be uncovered before a satisfactory examination of the latter can be made. For the purpose of clearing the passage, tepid water may be injected from a syringe; or, if the obstruction be but partial, consisting of a small quantity of wax, or of detached cuticle, hairs, or other small bodies, a pair of fine forceps may be employed, being passed through the speculum or not, as the surgeon may choose. The forceps which Mr. Wilde recommends for this object are long and slender, having the blades bent at an obtuse angle, so that when occupying the cavity of the speculum they do not prevent the operator from looking into the tube. An objection to using the syringe is, that, in cases where there is any inflammatory condition of the lining membrane of the meatus, or even a tendency to this state, the stream of water usually increases the already existing injection, or reddens the membrane which may previously have been little if at all suffused. Clear and minute directions are given as to the mode of using the syringe and the other instruments employed.

The form, curvature, colour, polish, vascularity, and the secretion of the entire lining membrane of the meatus, together with the condition of the membrana tympani, are to be carefully noted.

"The *tympanic membrane*, in an especial manner, claims our attention; not only its superficial colour, but its degree of opacity or transparency, its tenuity or thickening, its vascularity, and the arrangement and position of its vessels

in every part; its tension, flexibility, polish, curvature, and its position as regards the interior of the cavity of which it forms the outward boundary; and, also, the direction and projection of the handle of the malleus, and the characters of the membrane, both above and below this bone, should be carefully observed. While the membrane is thus within the field of the speculum, the patient should be desired to try and press air into the drum, by holding the nose, shutting the mouth, and making a forced expiration. This manœuvre should be resorted to several times, if the first be ineffectual, as some degree of tact on the part of the patient is necessary to test the experiment. The sound thus produced is a sort of *thug*, and very much resembles that of a dried bladder suddenly inflated with air. In order to become familiar with it, one should practise it himself. While the air is thus pressed into the drum, we should note accurately whether the membrane vibrates, or its tensility is altered; and, if so, whether it regains its original position suddenly or gradually. The patient's own sensations should likewise be taken into account in this matter. It is also necessary carefully to observe the degree of vascularity produced by this inflation, as well as the course and position of the vessels which cause such vascularity, for even in several healthy ears, if this experiment is made two or three times, we seldom fail to recognize one or two vessels becoming filled with red blood along the course of the malleus; and if a small aperture exist in the membrane which may have escaped the eye previously, we may then readily detect it both by sight and hearing. By this means, we often discover a perforation which, from its minuteness, or owing to the part being thickened or coated with discharge, had not been noted during the ocular inspection. If such exist, we shall then see its open everted lips sometimes pressing out mucous discharge, and also hear a peculiar whistling sound, which the air makes in passing through this narrow aperture. There are, however, some cases of perforate *membrana tympani*, where, from obstruction in the upper part of the Eustachian tube, or granulations in the middle ear, this cannot be effected. If the patient be able to inflate the tympanum by this method, we may then remove the speculum, and, applying our own ear, either directly or through the intervention of the stethoscope placed over the external auditory passage, the same method of inflation should again be had recourse to, and the peculiarity of sound which is thus produced in the middle ear, whether the ordinary normal rush of air, or a prolonged squealing or gurgling sound, such as might be occasioned by any contraction in, or thickening of, the walls of the Eustachian tube, or by dryness, or by accumulation of mucus, either in it or in the cavity of the tympanum, is heard. The stethoscope should also be applied over the mastoid process, and the same series of observations made upon the sounds, if any, produced there; but these latter can seldom be heard distinctly.

"If the patient be unable to inflate the tympanum, and we have reason to suspect some obstruction of the *Eustachian tube*, or an accumulation of mucus, blood, pus, or other matter, in the middle ear, we may then, should the case require it, proceed to inject air by the mechanical means of a pump, an elastic tube or catheter, into the cavity of the tympanum, while we carefully note the result by means of a stethoscope, or by the ear placed externally. It must, however, be particularly borne in mind that, if the patient is labouring at the time under acute inflammation of the drum or its membranes, or the lining of the Eustachian tube, the catheter is not only inapplicable, but highly injurious. I have latterly very seldom found it necessary to resort to this operation, as the cases to which it is applicable are of much greater rarity than is usually supposed, or as the works of aurists would lead us to believe."

Mr. Wilde furnishes very precise and detailed directions for the performance of Eustachian catheterism, and for injecting air or other substances into the tube, and describes the implements with which these operations may be best accomplished.

He insists abundantly upon the necessity of using extreme care and gentleness, and criticizes earnestly the too frequent and unnecessary resort to such

proceedings. The aphorism laid down by Sir Astley Cooper, is, like most of the rules of that distinguished surgeon, a very safe one: "Whenever the patient is himself able to inflate the tympanum, never use any artificial means to do so; it is unnecessary, and may be injurious." To this, Mr. Wilde adds another equally judicious: "Where there is reason to believe that the cavity of the drum is inflamed, carefully abstain from all poking with catheters, or any attempt to introduce foreign substances into that delicately organized portion of the animal machine." He particularly reprehends the dangerous practice, urged by some aurists, of exploring the upper part of the Eustachian tube, and even of attempting to penetrate to the cavity of the tympanum, by means of probes of various kinds. He says:—

"The only solid instrument with which I now ever venture to explore the Eustachian passage, and that for only a short distance, is an ivory bougie, rendered flexible by having the earthy matter removed by immersion in an acid, and the point of which, for an inch at least, had been previously softened in water, so as to resemble a piece of gelatine. A large-sized catheter should be first introduced, and the bougie passed up through it; but stricture of the Eustachian tube is so exceedingly rare, and so difficult to recognize during life, that the surgeon is very seldom called on to practise such an operation."

Various instruments have been contrived by Schmalz and others, for the purpose of measuring the hearing distance and the degree of deafness. Mr. Wilde prefers the ordinary watch which ticks loudly. The watch should be first held close to the external meatus, and then gradually removed, and the greatest distance at which the ear can count its tickings should be carefully noted and recorded, for subsequent comparison. The watch should be held in various positions with reference to the ear; in front, behind, in contact with the auricle, touching the mastoid process, the forehead, the teeth, &c.; it should also be tested with the mouth open and shut, both before and after inflation of the tympanum.

Some persons, more or less affected with deafness, hear comparatively faint sounds best when they are at the same time exposed to loud noises, as the rumbling of a cart, the thundering of a railroad train; some hear unequally at different periods of the day, after and before meals, in dry and in damp weather. These and similar peculiarities should be accurately inquired into.

Subjective sounds, commonly called *tinnitus aurium*, furnish also points of consideration in forming a diagnosis. Their importance is very variable, however.

The condition of the *throat*, the arches of the palate, uvula, tonsils, and pharynx, should also be investigated, particularly with reference to the state of the mucous membrane. The forefinger should be introduced far into the mouth, and its point pressed firmly upwards and outwards beyond the palatine arch, opposite the mouth of the Eustachian tube, and note taken of the degree of pain or inconvenience it produces there and in the middle ear. We should also carefully examine the state of the lining membrane of the nose.

The history of the case in all its aspects, and the subjective symptoms, should be investigated as in other diseases.

The *treatment* which Mr. Wilde recommends is much more actively antiphlogistic than is commonly supposed requisite by practitioners whose attention has not been specially directed to aural diseases. He says:—

"As most of the diseases of the organ of hearing are originally of an inflammatory character, depletion is strictly enjoined; I have, however, seldom found it necessary to resort to general bleeding; but local depletion is imperatively required, either by cupping or by leeches." In employing the latter,

they should not be applied, as is usually done, behind the mastoid process; but, to be of real service, "they must be attached with a small bevel-mouthed leech-glass immediately around and within the edge of the external meatus, in the fossa behind the tragus, and, if necessary, in front of that prominence, in the hollow formed by depressing the jaw."

He likewise insists strongly upon the importance of administering mercury, so as to affect the system, in all active inflammations of the ear which do not promptly yield to local measures. His remarks upon the modes of exhibiting this medicine, and the best forms in which it can be given, are very judicious.

"Under no circumstances," says he, "should we pour any sedative or stimulating liquors into the ear. From the frequency of this most unjustifiable practice in this country" (and can we not extend this same remark to our own?), "I feel I cannot too strongly deprecate it. If there is one substance more irritating than another in the *Pharmacopœia*, it is poured, *secundum artem*, into the ear, to relieve pain or cure deafness, to lessen or increase the secretion of wax! This practice is often the cause of myringitis."

It will be seen that Mr. Wilde applies the habit of close observation and prompt and decided action, which are felt to be necessary in the practice of ophthalmic medicine and surgery, to the examination and treatment of diseases of the ear. And in fact, throughout his book, he makes the known analogies of the structures and functions of the eye and ear practically useful and instructive in the management of the affections of the latter organ. We cannot too highly commend this chapter to the consideration of our readers.

The third chapter is allotted to an exposition of the *statistics and nosology* of ear diseases.

Mr. Wilde passes in review the reports of Kramer, Tscherner and Toynbee, and then furnishes us with the statistics of St. Mark's Hospital, embraced within a period of rather more than eight years, and comprising 2,385 cases. In this statement are recorded the nature of the particular disease of the organ, the age and sex of each patient.

This section is admirably prepared, and exhibits throughout a candour and a diagnostic acumen worthy of all imitation. He says:—

"As the acquisition of knowledge is progressive, so my means of forming an accurate diagnosis improved with my experience, and therefore the value to be attached to the early years included in this table is not so great as that for a later period. I have consequently divided the results into two portions; the first including three, the second four and a-half years. In the first portion of the table, out of 706 recorded cases, 85 were set down to *nervous deafness*, which I am inclined to think was an exaggeration, as, by a more carefully conducted examination, and with increased experience, I found but 18 cases out of 1679 in the second period; having observed since the former period that many of the cases attributed, for want of a better name, to '*nervous deafness*,' showed such manifest appearances of diseased action in the *membrana tympani*, that little doubt now remains upon my mind that the defect of hearing was to be attributed, not to paralysis or want of power in the auditory nerves, but to lesions produced by inflammation. Again, in the first period there is no entry for opacity and thickening of the *membrana tympani*, the unmistakable result of inflammation, but as many as 219 in the second; and under the head of inflammation of a chronic character, we find but 82 cases noted in the first, and 314 in the second."

Of the 2,385 cases reported, 570 were simply of impaired hearing produced by impaction of the external auditory passage with cerumen; 114 of nervous deafness, so called; 25 of tinnitus aurium, unaccompanied by deafness or any apparent disease; 14 of otalgia; 7 of deaf-dumbness, congenital or acquired; 2 of accidental hemorrhage from the tympanic cavity; 7 of congenital mal-

formation; 20 of collapsed membrana tympani; and two of tumours of the auricle; making in all but 770 diseases of the ear not directly traceable to inflammation or its effects.

It will be seen, therefore, that Mr. Wilde believes in the comparative infrequency of pure and simple *nervous deafness*. And to confirm his position, he inquires into the proportions which uncomplicated *amaurosis* bears to the mass of ophthalmic diseases. "Out of 11,233 cases registered at St. Mark's Hospital, but 857 were diseases of the retina and optic nerve, and only 841 of these were instances of uncomplicated amaurosis, or about 1 in every 33 of the entire." Now, bearing in mind the fact that the ear is less accessible to accurate examination than the eye, it is exceedingly likely that existing evidences of inflammation in the former may have escaped observation.

In this matter, Mr. Wilde's statistics are very much opposed to those of Kramer. Of his aggregate 2,000 cases, published in 1845, the *Berlin Aurist* designates 1,028 as of simple nervous deafness, or more than one-half; and of the second 2,000, published in 1849, 848 are of the same kind. Mr. Wilde very forcibly, and indeed unanswerably, combats the accuracy of this estimate not only upon the ground of his own observations, the analogy drawn from the comparative rarity of simple *amaurosis*, and the positive results of Mr. Toynbee's numerous dissections, but also from Mr. Kramer's own record of the appearance presented by the membrana tympani in the cases in question. Dr. Kramer states that, in nervous deafness, he has "almost always found the membrana tympani white like paper, and opaque, probably in consequence of the action of its absorbent vessels having been impaired." In reply to this assertion, Mr. Wilde very cogently remarks:—

"Now, had Dr. Kramer been conversant with the normal healthy condition of the membrana tympani, he would have known that it was shining, diaphanous, or semitransparent, and of a yellow-gray tint (except towards its superior attachment, and along the line of insertion of the handle of the hammerbone), somewhat the colour of gold-beaters' skin, or, what bears a still closer similitude, on account of its greater thickness and fleshy tint, the thin sheet gutta serena which has been lately introduced for surgical purposes."

The opinion of Mr. Wilde is confirmed by Mr. Toynbee's dissections, an abstract of which, taken from the *Medico-Chirurgical Transactions*, vols. 24, 26, and 32, is presented. Mr. Toynbee has examined 915 ears of 750 persons; of these, 303 were in a healthy state. Of the remaining 612, 184 had belonged to persons who are known to have been deaf; 70 showed such manifest evidences of disease as left no doubt upon the mind of Mr. Toynbee that defective hearing was experienced in these also; and 358 were believed by him to have been in a state of commencing deafness. The following is part of the conclusion of Mr. T., drawn from his examinations: "The fact of a thickened or otherwise deranged state of the mucous membrane lining the tympanic cavity being one of the most common pathological conditions of the organ of hearing, is the broadest general result of the dissections; and as cases as carefully examined, noted, and studied as they have arisen in practice, and lead to the same conclusion, I have little hesitation in stating diseases of that membrane to be the most usual cause of deafness."

The following are a few of the figures of Mr. Toynbee, which we copy to show how this inference is supported. The external meatus exhibited disease in 80 instances, or one in every 7½ cases; consisting of collections of cerumen and epithelium, pus and epithelium, contraction of canal with alterations in its lining membrane and osseous parietes. The membrana tympani was diseased in 209 cases, or nearly 1 in every 3, being white, thickened, or vascular; concave



externally or flat; concave and adhering to promontory; concave with deposits of calcareous matter; perforated or altogether destroyed, &c. The *cavitas tympani* contained morbid collections in 107 cases, or about 1 in every 6; its mucous membrane was diseased in 310 cases; bands of adhesion were found in it in 179 cases; the number of instances in which the ossicles were diseased or displaced amounted to 61. The internal ear exhibited the following departures from the healthy condition: The membranous labyrinth was thickened in 4 instances; atrophied in 6; the labyrinthine fluids were deficient in 8; the vestibule and cochlea contained bloody serum in 1 case, pus in 1; a band traversed the vestibule in 1.

In addition to the tabular exposition already alluded to, Mr. Wilde furnishes another, based upon 200 cases, of which all the important features are minutely detailed—exhibiting in each case the sex, age, and ear affected; the duration of the disease; the hearing distance; the state of the auricle, of the external meatus and canal, of the *membrana tympani*, of the middle ear and Eustachian tube; the amount and kind of pain; the degree and nature of the noises complained of; the state of the throat, and the cause to which the aural disease was ascribed. This is certainly the most carefully compiled, and the most minute table of diseases of the ear which has ever been published. We present the following brief abstract of some of its most interesting facts:—

In 27 instances, both ears were similarly and nearly equally affected; in 100, both ears were diseased, but under varying circumstances in the two ears; in 35, the right ear, and in 38 the left, was alone affected.

In 27 persons, the disease was within one month's duration; in 40, from one to six months; in 17, from six to twelve; 45 were affected from one to five years; 29, from five to ten; and 34 for a longer period.

The hearing distance varied very much: 70 of the patients could not hear the watch under any circumstances; 4 heard on its being pressed against the auricle; 61, on its merely touching that part; 125, within six inches; 22, from that to three feet, and upwards; and in 18, the hearing distance was normal, or not noted.

The meatus and external auditory canal were normal in 68 persons; dry and devoid of cerumen, with the membrane unnaturally white and slightly wrinkled, in 78; coated with discharge, the lining membrane thickened, and frequently pink or vascular, or the passage filled with crusts of inspissated mucus, in 88, and of these 18 had polypi growing from some portion of the canal; in 26 cases, the canal was inflamed; in 9, its walls were so much thickened or approximated as to give the external auditory aperture the appearance of a mere slit; bony growths presented in 4 instances; a few cases occurred of condylomata and other protuberances filling up the meatus, and 4 of congenital peculiarities as regards the length, width, and tortuosity of this canal.

The *membrana tympani* was normal in only 10 instances, "so that such may be fairly stated as the proportion of cases of *nervous deafness*. In 176 it was thickened and opaque, in whole or in part, from disease of its external layer, owing to inflammations of various kinds—with and without otorrhœa, pressure, or ulceration—from deposits of lymph between its laminae, or from thickening or vascularity of its mucous lining. These opacities presented the same shades of diversity as do those of the cornea, and they were equally variable in position and in extent. In 121 cases, the membrane was more or less vascular; sometimes presenting a uniform pinkish hue, varying in depth "from that of a monthly rose-leaf to that of a bright blood-red or scarlet, as when affected with recent inflammation;" sometimes the redness was in points

or in strisæ; in some, the whole surface was not only of a deep-red colour, but also granular, like that of a ripe raspberry or a granular eyelid. Although, says Mr. Wilde, "this corneous condition was often seen, and although so many cases of otorrhœa and polypus occurred, I have never observed a polypus growing from the external surface of the membrana tympani, either in these 200 cases, or in the many hundred ears that I have examined."

In 53 cases, the membrana tympani was more or less collapsed, depending, according to the dissections of Mr. Swan and Mr. Toynbee, upon adhesions passing through the cavitas tympani, either between the mucous surface of the membrane itself or the ossicula connecting it with the inner wall of the cavity. The membrana tympani was perforated in 48 cases, the size and position of the aperture being very variable. In 22 instances, the membrane was invisible, from obstructions existing in the canal.

The cavity was exposed in 28 ears; in 89 its state is not recorded; in 129 it was inflatable, in 73 not inflatable, the mode of testing this condition having been by the patient's own efforts, or by the use of the Eustachian catheter and air press.

"The state of the throat was normal in 181 cases out of the 200, a fact which goes far to disprove all that has been written upon what has been termed '*throat deafness*;' but then it is only fair to state that enlarged tonsils are rare among the lower orders."

The following conclusion is important, both in a preventive and in a curative point of view:—

"From the records of the foregoing 200 cases, taken indiscriminately as they presented themselves at a public institution, as well as from Mr. Toynbee's dissections already detailed, it is incontrovertibly manifest that inflammatory affections of some form or other have been the chief causes of aural diseases. This conclusion must, I think, be conceded; and it is of vast importance that the profession should be convinced on that point, as, on the one hand, it shows not only the inapplicability of the various nostrums still in use for '*deafness*,' while, on the other, it holds out a fair hope of alleviating diseases of the ear, if taken in time, by the ordinary means employed for arresting inflammation of the structures engaged."

Mr. Wilde then proceeds to consider the proper *classification* of aural diseases; and, after alluding to the systems proposed and adopted by other investigators of this subject, he propounds his own plan. He arranges these affections into diseases of the auricle and the auricular regions; those of the external meatus, of the membrana tympani, of the cavitas tympani, of the Eustachian tube, and of the labyrinth; and finally treats of deaf-dumbness, congenital and acquired. Each of these classes, with its numerous subdivisions, is treated of in separate chapters.

Before touching upon the pathology and treatment of the diseases of the auricle, mastoid region, and external meatus, described in the fourth chapter, Mr. Wilde details with considerable minuteness the anatomy of these parts—a course which, by the way, he pursues with reference to the other portions of the ear.

Passing by, as we are compelled to do, for want of space, many very interesting topics, we pause for a moment to commend the author's observations with reference to foreign bodies lodged in the external auditory canal. Accidents much more serious than is commonly supposed, such as epilepsy, and even death, have followed this ingress, accidental or otherwise, of extraneous substances; and probably much greater mischief is frequently produced by the unskilful and rude efforts made to dislodge them. Several insects, the

larvæ of flies, peas, the seeds of grain, beads, small pebbles, &c. &c., are often met with in the ear. Mr. Wilde narrates the case of a child who, while playing, allowed a small white stone to slip into the external meatus. A practitioner had employed various instruments to remove it, but, not succeeding in his attempts, he brought the child to Mr. W. The ear was bleeding freely; upon examining, he found the meatus extensively lacerated, and could touch a white rough surface on its anterior wall; this, however, was evidently not the pebble, but the denuded bone; he advised a suspension of hostilities until the hemorrhage should cease. A leech was applied to the margin of the meatus, and afterwards a poultice was laid upon the ear. During the night suppuration commenced, and on syringing the ear with tepid water in the morning, out came the pebble. But, unhappily, the membrana tympani had been ruptured anteriorly by the previous violence, and the bone extensively denuded.

The injection of tepid water will frequently suffice to wash out the offending body; or, at any rate, it will generally alter its position, and permit its extraction by means of a delicate forceps or a curette. But in using instruments, the greatest care should always be employed.

*Diseases of the membrana tympani* are the subject of the fifth chapter.

We quote from Mr. Wilde's careful description of the anatomy of the membrane the following paragraph, exhibiting the appearance of this important part of the auditory organ in its healthy state:—

"Viewed through the speculum, with a stream of clear sunlight upon it, the membrana tympani is of a grayish hue and semitransparent, and presents externally an irregularly curved surface, as also different degrees of density, polish, and tension. It is divided by a white streak, thick above and narrow below, except at its extremity, which is slightly enlarged, and indented into a navel-like depression. This white opaque line is the manubrium of the malleus, proceeding from the upper attachment of the membrane downwards, somewhat backwards, and a little inwards, to a point slightly below the centre of the membrane, and thus divides it into an anterior, a posterior, and an inferior portion. But the exact situation of this bone, and consequently the relative proportion of the parts which it divides, present great diversity. The anterior part of the membrane is thin, almost transparent, or as clear as fine gold-beaters' skin, highly polished and generally convex, a speck of bright light being reflected from its most prominent part. This may be called the anterior vibrating portion. In many cases, the short process of the malleus may be seen as a small round dot above the manubrium, where the membrane curves off into the roof of the meatus. The bottom of the meatus, it should be remembered, is funnel-shaped, the broad end of the funnel being towards the tympanum," &c. &c.

In making this examination, the speculum should not be inserted much beyond the middle of the meatus; then, by altering the position of the head and the angle of the instrument, the entire extent of the membrane may be seen. Its vascularity and the shape of its presenting surface are more or less affected by examining it whilst the cavity of the tympanum is inflated.

The appearance presented by a healthy tympanal membrane should certainly be accurately scanned by any one who attempts to practise aural surgery, just as much as the normal sounds of respiration or of the heart should be learned by any one who proposes to study auscultation. We know not where the student can so well seek for the necessary information to guide and assist his own observations as in these nine pages of Mr. Wilde.

In speaking of *wounds and injuries* of the membrana tympani, Mr. Wilde attributes their most frequent cause, apart from direct mechanical violence, to which we have already adverted, to sudden and violent concussion of the

atmosphere, as in the discharge of heavy artillery; to diving deeply into, and remaining unusually long under, water; to prolonged coughing, as in pertussis; to hard blowing of the nose; to severe congestion of the head, as in a fit of intoxication, &c. A sergeant of artillery informs him that "many of his men say that they have seen hemorrhage occur from the ear, but it is not so frequent as is supposed; dulness of hearing is, however, very common, especially among old gunners. The effect of position, with reference to the gun, is peculiar; those men who stand nearest the muzzle feel the report most, but all who are to leeward suffer more than those who are to windward. Brass ordnance make a sharper report and ring louder than iron guns, the usual effect of which, as I myself have experienced, is that of receiving a smart blow upon the tympanum; this, however, soon passes off, and leaves a singing or tingling sensation in the ear for two or three days. Another peculiar sensation is that of having water in the ear, as after bathing. After some practice, the ear becomes accustomed to the shock, and men learn by experience where to stand so as to feel the concussion least." Occasionally, too, paralysis of the facial nerve coincides with that of the auditory, as in an instance recorded by Mr. Wilde.

With regard to the duty of the surgeon, when called to a case of injury to the membrane, Mr. Wilde says: "I believe that the best treatment which can be adopted for recent injuries of the membrana tympani is to let them alone, unless inflammation should arise, when this must be met by local depletion, &c. It is remarkable that whilst we experience the greatest difficulty in keeping open a perforation made with a surgical instrument, accidental openings seldom close." This fact is less remarkable when we consider the greater violence done in the latter than in the former case; the last partake more of the character of incised, the first of contused and lacerated wounds.

Inflammations of the *membrana tympani* receive from Mr. Wilde a large share of attention, not more, however, than they deserve, considering not only their intrinsic importance and the serious consequences which they entail, but also the fact, according to the author, that inflammation of the *middle ear* always, and at the very commencement, is shown by the appearance of the membrana tympani. He says, indeed, "I do not believe it possible for one to exist independent of the other for any length of time; no more than an ophthalmia can be circumscribed, or that we can by the term *iritis* define a single uncomplicated inflammation of the membranous diaphragm of the ocular chamber."

The term *myringitis* is applied to inflammation of the membrana, and *tympanitis* to that of the *cavitas tympani*.

Mr. Wilde treats of inflammation of the membrane under the following divisions:—

1. Acute inflammation of the membrana tympani, commencing in its fibrous layer, accompanied by phlogosis of the cavity of the tympanum; frequently of a rheumatic character.
2. Subacute inflammation, unaccompanied by pain.
3. Syphilitic inflammation.
4. Strumous inflammation, generally in the mucous layer, with mucous engorgements of the tympanum.
5. Chronic inflammation, with or without inflammation of the cavity of the tympanum.
6. Inflammations accompanying the exanthematic and other fevers, extending from the tympanum, and generally producing otorrhœa.

We cannot pretend to follow Mr. Wilde through his instructive and elabo-

rate descriptions of these states of the membrane. Suffice it to say, that they are to be investigated after the manner already pointed out; and, that they are revealed by modifications of vascularity, secretion, and sensation, just as analogous tissues in other parts of the body give evidence of the inflammatory condition. There is nothing specific or peculiar in the diseases of the tissues composing the ear, differing from those of the same kind of structures elsewhere; and we regard it as one of the excellences of Mr. Wilde's book, and as a sufficient proof of his veracity, honesty, and sound pathological views, that he does not attempt to magnify the difficulties attending the study of one of his favourite branches, and consequently to trumpet forth his own praises for having so happily surmounted them, as is too apt to be the case with *specialists* in medicine.

We shall cite his remarks, here and there, upon a few topics considered in this portion of the volume.

In detailing the symptoms of *acute myringitis*, he says:—

"I have known a man to be treated for inflammation of the brain who merely laboured under inflammation of the ear; and, on the other hand, a very curious impression exists among, and is too frequently acted on by the profession, that earache is a neuralgic affection. To this very general mistake we must attribute the practice, so frequently and empirically resorted to, of pouring into the ear the various nostrums, sedatives, and stimulants, calculated to allay pain in external parts. So rare is true neuralgia of the ear, that Dr. Kramer says he 'never observed earache without evidence of inflammation, either of the meatus or of the membrana tympani.' Although I am not prepared to go the length of saying that such an affection does not occasionally exist, I must say, that I cannot tax my memory with more than one or two instances of so-called 'nervous otalgia,' for which I have been consulted, that upon a careful examination I could not discover some direct visible cause for it; and I must, therefore, with Dr. Kramer, 'deny to those persons the right of pronouncing a decisive opinion upon the existence of a nervous otalgia, who do not understand investigating the membrana tympani in bright sunshine, and with the aid of the speculum, and who are not in the habit of doing it.'"

The antiphlogistic treatment should be resorted to in this affection. The patient should remain in a warm, well-ventilated apartment; or, if compelled to go out, the cold air should be carefully excluded from the ear; in severe cases, he should be confined to bed. General bleeding is rarely necessary; but a few leeches, applied in the manner already described, should take blood from around the external meatus, and the abstraction should be repeated, if necessary, followed by the application of moist heat. The general treatment is the same as that employed to relieve other inflammatory affections; and the use of mercury should be unhesitatingly resorted to, if the symptoms do not speedily yield to the means previously tried. The state of the meatus and the membrana tympani should be examined daily by the aid of the speculum; if an ulcer is detected, it should be touched with a solution of nitrate of silver on a camel-hair pencil. Mucous or purulent secretions should be gently removed by syringing with simple tepid water. No astringent injections being employed during the existence of active inflammation.

Should the *mastoid process*, or the soft parts covering it, become implicated, and relief should not follow the remedies already enumerated, and particularly if there be any sense of fluctuation, however obscure, Mr. Wilde insists upon the importance of freely cutting through to the bone.

Under the head of the treatment of *subacute myringitis*, we find the following suggestion, which is new to us. To relieve the tinnitus aurium, which frequently remains for a considerable time after the inflammation has ceased,

Mr. Wilde says that he has found the preparations of the *arnica montana* of decided benefit; indeed, he observes:—

"It is the only medicine with which I am acquainted which seems to possess a specific power over this annoying and usually most intractable complaint. The preparation which I find most efficacious is the tincture, both of the flowers and the leaves, of which the patient should commence by taking fifteen drops in a tablespoonful of the infusion of arnica, with some aromatic tincture, three times a day. After a few days, the dose should be increased one or two drops daily, till it reaches thirty, or even more, unless headache or giddiness should be produced, when we should at once lessen the dose, or omit the medicine altogether for a time. The state of the bowels should be carefully attended to during the administration of this drug."

This medicine should only be employed after the original cause of the tinnitus has subsided, or when it exists without any apparent lesion of the parts. The formula for the preparation of this tincture is: "One ounce and a half of the *flowers* to a pint of rectified spirit of wine; macerate for fourteen days and strain; or, of the *leaves*, the same quantity infused for a similar period in proof spirits." In prescribing them, Mr. Wilde usually orders equal proportions.

We find a very interesting section on *otitis occurring in connection with ophthalmia*, a complex form of disease, met with most commonly in strumous children, in whom the aural affection is very apt to pass unnoticed, from the simple fact that the condition of the eyes is the most apparent and the most unpleasant.

The complication may be more serious than could be anticipated.

"If we look," says Mr. Wilde, "into the statistics of deaf-dumbness in different countries in Europe and America—and the same holds good with respect to the investigations instituted in Ireland on this subject—we shall find, among the causes of acquired muteness, 'diseases of the eyes' frequently recorded. Now, as we cannot suppose that diseases of the organs of vision could of themselves produce total deafness, leading to complete loss of speech, we are forced to the conclusion that, with the ophthalmic disease, co-existed some insidious aural affection such as I have described, and so intense as to produce deafness, and, in very young persons, consequent loss of speech." After citing a case in point, he observes: "In cases of this nature, the patient should be encouraged to speak as much as possible, and on no account to employ signs or finger-writing. He should be spoken to in a clear, distinct tone of voice, not too loud, and the mouth should be removed from his ear gradually day by day, so as, if possible, to educate the sense, and increase the hearing distance; he should also be made to read aloud every day," &c.

Passing over the important sections on *chronic inflammation* of the membrana tympani, *morbid deposits in*, and *collapse of*, the same, not to enumerate others, from all of which we might advantageously quote, we come to the consideration of *artificial perforation* of the membrane. This is an operation which was at one time vastly praised and talked about, but concerning which we now hear correspondingly little.

The conditions for which this proceeding is commonly recommended are closure of the Eustachian tube, accumulation of extraneous matters within the tympanum, and thickening of the membrana tympani. Mr. Wilde does not consider the operation as either required or proper in the first class of cases; and in those instances of permanent thickening and opacity of the membrana, where the proper treatment has failed to induce thinning, he looks upon the operation with doubt, because the condition of the membrana tympani above specified is usually merely coincidental with "a general thickening and disorganization of

the investing membrane of the middle ear, perhaps that of the labyrinth also," which is beyond our vision. But, when we are convinced that the cavity of the tympanum is filled with uncoagulated blood, or other fluid, which cannot find exit through the Eustachian tube, he thinks that an aperture should be made to give it escape.

To perforate the membrane, he discards all complicated instruments; because the operation cannot be done safely excepting through the speculum, along which a stream of sunlight should pass to the bottom of the canal, and the perforating instruments in use fill up the tube of the speculum so much, that the eye cannot watch and guide their motions; and because, also, most of them inflict a great deal of pain. He therefore prefers to use a narrow knife, with a sickle-shaped blade, cutting on both edges; and, having introduced the speculum, and made the patient inflate the tympanum, so as to render the membrane tense and pressed outwards, he gently inserts the knife through its inferior thin and vibrating portion, draws the blade then downwards and forwards, and makes a simple incision of the membrane, about a line and a half long. If left to itself, this incision would speedily close; he therefore touches its edges lightly with lunar caustic, as often as may be necessary, to render the opening sufficiently large.

We pass on to the sixth chapter, which treats of *diseases of the middle ear and Eustachian tube*.

Much has been said and written about *throat* deafness, and the frequency with which disease of the throat produces deafness. It appears to us, that Mr. Wilde has taken the proper view of this question. He says:—

"Viewed in the recent state, by making a central vertical section through the base of the skull, mouth, and pharynx, the lower opening of the Eustachian tube presents an obliquely upright elliptical slit or fissure, about half an inch long, with thick, round, and slightly prominent lips. Placed thus behind, and so much above the hard and soft palate, it is manifest that the tonsils, even when enlarged, cannot press upon its partially open mouth without first coming in contact with the palate, and lifting upwards and backwards the velum, which, it is well known, never occurs. When the tonsils are in a state of chronic enlargement from hypertrophy of their follicles, thickening of their mucous membrane, and cheesy, calcareous, or other abnormal deposit within their structure, they first approach one another, and consequently encroach upon the size and shape of the isthmus faucium, then towards the cavity of the mouth, and afterwards into the bag of the pharynx. I have never seen or heard of a preparation showing the greatest possible enlargement of the tonsil, in which it pressed upon the trumpet-mouth of the Eustachian tube. Anatomists will, therefore, find it as difficult to believe that enlarged tonsils produce deafness, as practical surgeons to believe that their removal can in any way relieve loss of hearing. When deafness co-exists with enlarged tonsils, I believe that it is produced by the thickening of the mucous membrane extending into the Eustachian tube, or into the tympanum."

The diseases of this part of the ear are classified in the same manner as those of other portions of the organ—malformations, injuries, inflammations, morbid growths, and deposits. The sections devoted to inflammations are particularly worthy of study.

Diseases of the *internal ear* are considered in the seventh chapter. As elsewhere, a minute account of the anatomical structure and arrangements of the parts concerned precedes the pathological inquiry. The subject which appears to receive the largest share of attention is *nervous deafness*.

As has already been shown, Mr. Wilde is strenuous in maintaining that nervous deafness, unaccompanied by organic lesion which is cognizable to our senses, where the Eustachian tube is pervious, the mucous membrane lining

the tympanal cavity healthy, the membrana tympani in a natural condition, and the external auditory canal sound, is rarely met with. And, bearing in mind the lamentable ignorance on the subject of aural pathology with which the profession is so generally chargeable, we must agree with him in thinking that the term in question is commonly used as a cloak for want of knowledge and inability to make an accurate diagnosis.

However, if the absence of organic disease be established, the surgeon must determine whether the seat of the difficulty be in that portion of the auditory nerve which is expanded within the labyrinth, or at some point of its course between its origin in the brain and its exit from the cranium; and whether the paralysis depend upon congestion, softening, atrophy, pressure, or any other of the numerous diseases to which the encephalon is liable. Deafness is sometimes the forerunner of apoplexy, epilepsy, and paralysis, just as amaurosis is.

Mr. Wilde examines carefully the views of Kramer and others upon this subject, and passes in review the various plans of treatment employed. But, upon the whole, we do not find anything very satisfactory concerning this distressing affection, excepting the conviction that it is in the great majority of cases dependent upon some inflammatory or other morbid organic change in the auditory apparatus; and that the treatment should consist in preventing this originally, or in removing it or its effects, according to general pathological and therapeutical principles, if it has already progressed. Any specific treatment for deafness *per se* seems to be empirical.

The eighth chapter is devoted to *otorrhœa*. Although this is not so much a disease as an effect and a symptom of many diseases of the ear, yet, from its great frequency and importance, the author has given it a separate chapter.

From a table, cited already, it seems that about 1 in every  $3\frac{1}{2}$  cases (647 in 2,385) presented discharge of the ear as a symptom. Of these, 64 were complicated with polypi; in 55, the membrana tympani was either perforated or destroyed. As is well known, *otorrhœa* is most common in infancy and youth. The duration varies very much. Of 83 persons, 23 had suffered from a month to a year; 12, from two to three years; 11, from four to five years; 13, from six to ten; and 13, more than ten years.

The symptoms preceding or accompanying the discharge may be those of active inflammation, or they may be more or less wanting, the *otorrhœa* itself being the most prominent and distressing symptom. The author presents a very graphic picture of a well-marked case, passing from its ordinary to the more aggravated phenomena.

Under the head of the *causes* of this affection, Mr. Wilde says that porrigo, crusta lactea, herpetic, and other eruptions extending to the ear, produce it, particularly in unhealthy children. Mechanical injuries, such as blows or the introduction of foreign bodies, will, no doubt, occasion otitis, and subsequently discharge; but unless in persons of marked strumous cachexia, or very much broken in health, it seldom continues for any length of time, or proceeds to anything serious. Under the head of mechanical injury, has been counted impaction from hardened wax; but the author has never witnessed, nor does he think it likely, from the manner in which it is formed and retained, to cause *otorrhœa*. He has several times met with cases of otitis ending in *otorrhœa*, produced by improper use of the syringe, under the supposition that the accompanying deafness arose from impacted wax, where no wax existed. Fevers of every kind, especially the exanthemata, often induce discharges from the ear. Cold bathing, too prolonged, or indulged in too frequently, will also give rise to *otorrhœa*. Mr. Wilde does not think that syphilis and gonorrhœa are as chargeable with this complaint as has been supposed by some writers.



The morbid alterations of structure, upon which the discharges directly depend, are at first those of simple inflammation of the membrane lining the auditory canal and the membrana tympani. If the ear were carefully examined with the speculum, the tube would probably be found dry, slightly reddened, and tender; the ceruminous secretion wanting or scanty; the membrana tympani deprived of its pearly polish, and slightly pinkish, and red vessels would be discerned in it, coursing along the site of the handle of the malleus. A little later, the secretion of wax would have ceased, the cuticle lining the meatus become thickened and readily detachable in whitish flakes, beneath which would ooze a thin, sero-purulent discharge; the membrana tympani would be found more vascular, the thin pellicular cuticle covering its external surface would be gradually thrown off with the discharge, and then the membrana would look red and villous, like the conjunctiva of the eyelids in catarrhal ophthalmia. Still later, the cuticular lining would have become cast off, the tube converted into a mucoid secreting surface, its walls thickened, and its caliber diminished, the granular state of the membrane increased, and perhaps polypous excrescences would be found springing from the posterior inferior surface of the tube, where the bone and cartilage unite. Finally, the membrana tympani may have given way by ulceration, the middle chamber become opened externally, and some of the ossicula, particularly the incus, may have been discharged. From this period, the disease may still increase in its ravages, even to a fatal issue.

Mr. Wilde criticises severely, but we cannot say unwisely, the common inculcation of physicians, as well as of people generally, which forbids all efforts to "dry up" these discharges. He says, after passing in review many of the cases in which bad effects are said to have followed the checking of an otorrhœa: "I have not been able to discover one well-authenticated instance where disease of the head supervened as a consequence of checking otorrhœa, in a case where the condition of the ear had been previously ascertained, and where disease of the bone had not previously existed. Men do not distinguish between the *post hoc* and the *propter hoc*; but, mixing up cause and effect, regard a symptom as a disease."

The prognosis must, of course, depend very much upon the cause, severity, and duration of the disease; the extent of the affected parts; the presence or absence of morbid growths; and the age, habits, constitution, &c. of the patient. But, "so long as otorrhœa is present, we never can tell how, when, or where it will end, or to what it may lead."

In the treatment of this complaint, Mr. Wilde trusts mainly to the local use of the salts which are commonly employed as collyria, especially to the nitrate of silver in solution; it should be applied by means of a camel-hair pencil, or a piece of soft sponge attached to a probe. The strength of the caustic solution should vary according to circumstances, as in its employment in eye affections, from three to twenty grains of the salt to an ounce of water. The caustic may be applied every second or third day, and in the intervals the ear should be carefully syringed with tepid water, so as to free it from the secretion which collects in it. Moderate leeching should in certain cases be combined with this topical treatment, as also the judicious use of blisters, or other counter-irritants. The constitutional means should depend upon the nature of the case; mercurials, iodide of potassium, cod-liver oil, and the preparations of bark, may be mentioned as the most important. The granulations which not unfrequently sprout from the membrana tympani are best removed by touching them with solid nitrate of silver.

The last topic which we shall notice in this chapter is *polypus*, concerning which Mr. Wilde has written many interesting and instructive pages.

Polypi, says he, are frequent complications of otorrhœa, occurring at every period of the complaint. Their size varies from that at which they readily escape detection, unless the investigator be skilful in his examination, to such as shall entirely fill the external auditory passage. They are always accompanied by discharge, and are frequently its chief cause. In eight cases out of a dozen, they sprout from the site of the ceruminous glands in the posterior wall of the meatus; they usually grow singly; sometimes they are attached by a pedicle, sometimes are seated on a broad base. Some authors, indeed aural surgeons generally, describe a form of polypus sprouting from the surface of the membrana tympani; but Mr. Wilde has never seen such, and thinks that those which have been supposed to be thus seated really sprang from the cavity of the tympanum, and passed through a rent in the membrane, presenting a mushroom-like or expanded head, which spread over the surface of the membrane; such growths, however, can always be lifted from the membrane, and their true source then recognized.

So long as the polypus is still contained within the meatus, they are ordinarily smooth and polished on their surface, and of a florid red colour; but as soon as they appear externally, they become pale, cuticular, and comparatively insensible. In form they may be uniform, or more or less deeply lobulated, botryoidal. Mr. Wilde describes and figures six kinds of polypi, differing in structure, size, shape, and consistence.

To cure them, he recommends their removal by knife or scissors, or preferably by the *snare*. The instruments which he employs are described and illustrated by drawings; the *snare* which he has invented is a beautiful little instrument, and one which, we should think, would accomplish its purpose admirably well. (We may remark, *en passant*, that Mr. Gemrig, of this city, in Eighth Street, has for sale all these instruments recommended by Mr. Wilde, made from the drawings in this book, and from patterns belonging to Dr. Hewson.) After the tumour has been detached, lunar caustic should be carefully applied to the seat of its attachment; this is preferable to any other caustic substance.

In an *appendix*, Mr. Wilde presents an exceedingly interesting essay on deaf-dumbness. His position as one of the *Irish Census-commissioners* not only induced him to direct special attention to this subject, but of course afforded him abundant facilities for investigating it, at least with reference to his own country. And we cannot but say that, so far as we know, this appendix embodies the most complete report on this interesting and pitiful infirmity with which we have hitherto been favoured. Our notice of this volume has, however, already reached a sufficient length, and we will not examine this concluding chapter.

A few general remarks, and we have done.

The uniform good sense and sound discriminating judgment which characterize Mr. Wilde's work, together with the absence of all attempts to throw a veil of mystery over this specialty in pathology, as though it required for its successful cultivation knowledge of a peculiar kind, or some special endowments different from those which enable a man to practise advantageously in other departments of medicine, must of themselves commend this work to the profession; and we entertain no doubt that those who study it will feel, with ourselves, that it is the best guide and assistant in the practice of aural pathology which exists in any language. The general inculcations upon which the author lays most stress are the necessity of instituting a careful and

thorough examination of the ear, both with and without the aid of the speculum; the rarity of *nervous deafness*, as it is commonly called; the important role which inflammation, in various forms and grades, plays in aural affections, some traces or evidences of which are observable in the vast majority of cases; and, finally, the necessity of combating or removing the effects of inflammation, in most instances, if we desire to prevent the occurrence of deafness and other more serious results, or of removing them, if they have been already produced.

Dr. Hewson, the American editor, has found his duties light and agreeable. He has not attempted to make many additions, where very few seemed to be needed; an apposite note introduced here and there shows, however, that he has himself been a careful student of the subject. We must say, too, that he has somewhat improved Mr. Wilde's English. In his particular attention to the matter of his book, and amidst the multiplicity of his private and public avocations, the author has suffered many inaccuracies and inelegancies of style and diction to obtrude themselves upon his pages. As an instance, we quote the following sentence—one of many in which the same error occurs: "If this obstruction be complete, and *that* we have reason to suppose," &c.; the editor has very properly omitted the particle which we have italicized. Possibly, Mr. Wilde may regard the correction as a specimen of what the *British and Foreign Medical Review* some years ago facetiously styled "the American variety of the English language;" but if it be so, we honestly think that the child has improved upon the parent.

F. W. S.

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ART. X.—*Homœopathy: its Tenets and Tendencies, Theoretical, Theological, and Therapeutical*. By JAMES Y. SIMPSON, M. D., F. R. S., &c. Third edition. Edinburgh, 1853: 8vo. pp. 292.

We have here an octavo volume of nearly 300 pages against homœopathy. Many physicians will be inclined to treat this announcement with the question, *cui bono*—of what use is it thus to make war upon this delusion? For some maintain that it is better to let it entirely alone, and take the broad ground that physicians will better promote the interests of medical science and our profession by quietly pursuing their own course, and treating all quackeries and delusions with silent contempt. And they therefore think that Dr. Simpson and others, who have written exposures of homœopathy, have not only done no real service to science, but have injured both our science and our profession by the notoriety and importance which they have given to this delusion by their attacks.

The number in our profession who hold this opinion we do not suppose to be very large, and yet it is large enough to make it proper for us to examine their views. If they are incorrect, their influence upon the attitude of the profession towards quackery ought to be removed; and if, on the other hand, they are correct, the tactics of medical men in relation to this evil should be materially and almost universally altered.

When errors prevail in regard to any subject, it is commonly deemed important that they should be exposed. If medicine be an exception in this respect, there must be some peculiar reasons for this, arising from the nature